

Dodecatheon austrofrigidum Chambers sp. nov. ined.
frigid shooting-star
Primulaceae (Primrose Family)

Status: State Endangered

Rank: G2S1

General Description: Adapted from Ziegltrum (1994): A perennial herb with magenta petals and a yellow corolla tube colored at the base with an undulating magenta line. The stamens are dark colored and their filaments are not united at the base. The tip of the stigma is not enlarged to a pinhead. The leaf margins are often toothed, but may also be entire.

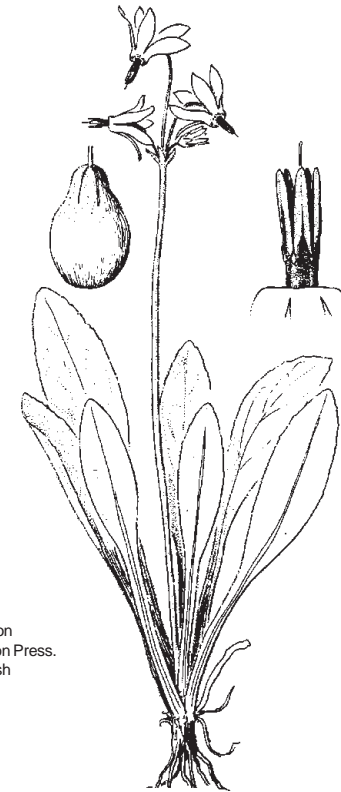
Identification Tips: *D. austrofrigidum* is most easily confused with *D. pulchellum* (*D. pauciflorum* in *Vascular Plants of the Pacific Northwest*); however, the stamens of *D. austrofrigidum* are separate at the base, whereas *D. pulchellum* always has a united filament tube at the base of the stamens. *D. dentatum* has toothed leaves that are similar to *D. austrofrigidum*, but *D. dentatum* always has white flowers in contrast to *D. austrofrigidum*'s magenta petals.

Phenology: Identifiable in June.

Range: This species is found in Clatsop and Tillamook Counties, Oregon, and Grays Harbor and Pacific counties, Washington.

Habitat: This species has been seen under overhanging cliffs and in rock crevices on steep basalt slopes along rivers and ridges. It has been seen in vernal moist areas that can be either open or shaded. The elevation range of the species is between 200 and 4000 ft (61 and 1219 m). In Washington, it has been found from 1800 to 3800 ft. At the higher elevation sites in Oregon it occurs in grassy sod over a rocky substrate, with Pacific silver fir (*Abies amabilis*), western hemlock (*Tsuga heterophylla*), copper-bush (*Cladothamnus* sp.), and fringe-petal kittentails (*Synthyris schizantha*), while at the lower elevation stream bank sites in Oregon it occurs with red alder (*Alnus rubra*), queen-of-the-forest (*Filipendula occidentalis*), thimbleberry (*Rubus parviflorus*), salmonberry (*Rubus spectabilis*), western saxifrage (*Saxifraga occidentalis*), Nuttall's saxifrage (*Saxifraga nuttallii*), and yellow monkey-flower (*Minulus guttatus*).

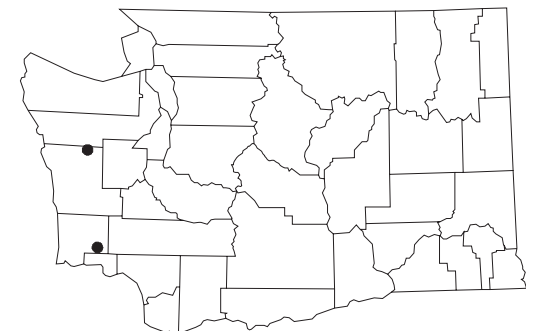
Dodecatheon austrofrigidum
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Illustration by Jeanne R. Janish

(This illustration of *Dodecatheon poeticum* differs from *Dodecatheon austrofrigidum* in leaf shape and has a united filament tube.)

Known distribution of
Dodecatheon austrofrigidum
in Washington



- Current (1980+)
- Historic (older than 1980)

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Photo by Kenton Chambers



Photo by Kenton Chambers

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Ecology: This species often grows on substrates of thin soil. Seeds appear to require several months of cold to germinate. In Washington it grows on open rocky surfaces and in Oregon it has been found on rocky slopes and sloping river rock banks below the scour line.

State Status Comments: Known from two recent occurrences, one in the Olympic National Forest in Grays Harbor County and the other in Pacific County.

Inventory Needs: Moist, rocky cliffs and crevices in southwestern Washington should be systematically surveyed for additional populations. Recent occurrences should be revisited.

Threats and Management Concerns: Present threats in Oregon have been identified to include flooding, damming, and erosion due to timber harvest.

Comments: The species is not described in *Vascular Plants of the Pacific Northwest* by C.L. Hitchcock and A. Cronquist and not yet published in the scientific literature, although it is informally described by Kenton Chambers of Oregon State University.

References:

Berry Botanic Garden. [January 27, 2004]. http://www.berrybot.org/pubs/ar_stdoau.html.

Hitchcock, C.L., A. Cronquist, M. Ownbey, J.W. Thompson. 1959. *Vascular Plants of the Pacific Northwest Part 4: Ericaceae Through Campanulaceae*. University of Washington Press, Seattle, WA. 510 pp.

Ziegler, J. *Olympic National Forest Plants of Concern Identification Guide*. 1994. United States Department of Agriculture.